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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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EXAMINER

HEWITT, JAMES M

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/038,507

Applicant(s)

HOPKINS ET AL.

Examiner

James M Hewitt

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in claims 1-8: a coupling, a tapered female mouth (in the detailed description), a tapered male mouth (in the detailed description); in claims 9-16: a fitting; in claim 17-24: a fitting.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13 and 17-24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 13, the tapered mouth of the vessel is claimed to have a convex, curved cross-sectional profile. The specification fails to provide adequate support for this limitation. The vessel is never said or depicted to take any type of cross-sectional profile except for a linear one.

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Regarding claim 17, the fitting is claimed to have a tapered mouth, and the vessel is claimed to have a tapered engagement portion. The specification fails to provide support for these limitations. The specification describes the vessel as having a tapered mouth and the fitting as having an engagement portion, not the other way around. Claims 18-20 require the cross-sectional profile of the engagement portion (of the vessel) to be curved, and the cross-sectional profile of the tapered mouth to be linear. These claims lack enablement as well for the reasons explained regarding claim 17. The vessel is never said or depicted to take any type of cross-sectional profile except for a linear one. The fitting is never said or depicted to take any type of cross-sectional profile except for a curved one.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 lines 1-2, the phrase "A coupling...providing for a gasketless seal between adjacent bodies" does not make sense. Delete "for".

In claim 1 line 6, "the other of the adjacent bodies" is indefinite. Line 2 introduces the term "adjacent bodies". Said term does not necessarily imply two bodies as several bodies may be adjacent. The indefinite phrase incorrectly assumes that said term

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implies two bodies. In line 2, "two" can be inserted before "adjacent bodies" to obviate this rejection.

In claim 9 lines 5-6, the phrase "a tapered engagement portion shaped to sealingly contact the tapered mouth *in a circular seal*" is awkward and confusing. Replace "in a circular seal" with "to form a circular seal".

In claim 9 line 6, it is unclear how the circular seal can be said to have a contact angle. It is apparent that the contact angle is formed between the contacting surface of the tapered engagement portion and the tapered mouth.

In line 2 of each of claims 10-13, it is unclear how "a tapered mouth" relates to that recited in claim 9. It is apparent that "a tapered mouth" in claims 10-13 refers to that recited in claim 9, and thus should be changed to "the tapered mouth".

In line 2 of claims 18-21, it is unclear how "a tapered mouth" relates to that recited in claim 17. It is apparent that "a tapered mouth" in claims 18-21 refers to that recited in claim 17, and thus should be changed to "the tapered mouth".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 25 rejected under 35 U.S.C. 102(b) as being anticipated by Hasimoto (US 5,120,084).

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Referring to figure 8, Hashimoto discloses a first component (1) with an engagement portion having a linear cross-sectional profile, and abuts a second component (4) having an engagement portion of curved cross-sectional profile against the first such that the contacting surface is circular; the components are urged together by nut (24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto.

Referring to figure 8, Hashimoto discloses a metallic fitting (4) for sealing a fluid at a pressure greater than or equal to 15,000 psi in a vessel (1) of a like metallic material, without requiring a gasket therebetween, the vessel having a tapered mouth for engaging the fitting along a coupling axis, the fitting comprising: a tapered engagement portion shaped to sealingly contact the tapered mouth in a circular seal, the engagement portion having a convex, curved (elliptical or arcuate) cross-sectional profile, the tapered mouth having a linear cross-sectional profile.

Hashimoto discloses the claimed invention except that the linear cross-sectional profile (or tangential contact angle) ranges from 40-68 degrees (or 50-59 degrees) from

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the coupling axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ said range in Hashimoto, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill. *In re Aller*, 105 USPQ 233.

Hashimoto discloses the claimed invention except that the linear cross-sectional profile (or tangential contact angle) is 54 degrees from the coupling axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ said range in Hashimoto, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brophy, III et al, Hashimoto '939, Peterson et al, Takikawa, Neumann, Kida and Dials all show relevant coupling assemblies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1020.

jmh
October 17, 2002



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3620